Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
National Exchange Carrier Association	)	WC Docket No. 04-259
Petition to Amend Section 69.104 of the	)	RM-10603
Commission's Rules	)	

COMMENTS OF THE NATIONAL EXCHANGE CARRIER ASSOCIATION, INC.

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Summary

The Commission should permanently modify section 69.104 of its Rules to permit rate-of-return carriers to reduce from twenty-four to five the number of subscriber line charges (SLCs) that they may assess on customers of derived channel T-1 service (DS1 Channel Service or DCS) where the customer provides the terminating channelization equipment .

Data NECA collected from its Rate Development Task Force (RDTF), along with other data, strongly suggest that no more than five SLCs should be assessed upon DCS configurations. As discussed herein, it appears that a lower ratio may be justified, but given the relatively small sample size available NECA recommends as a conservative course setting the ratio at no more than 5 to 1. Certainly, no cost-based reason exists to justify requiring non price-cap local exchange carrier (LEC) customers purchasing DCS to pay more in end user charges than customers purchasing functionally equivalent PRI-ISDN service. This modification to the Commission's Rules will further the Commission's long-standing goal to align rates with costs. Furthermore, the change will not unduly burden the high cost universal service fund. To the contrary, the change will further the public interest and advance universal service objectives.

In making the change, the Commission should not promulgate rules that require carriers to assess different charges depending on the network architecture deployed, or customer location. Such regulation of functionally equivalent services is not competitively neutral, is administratively unworkable, and would defeat universal service objectives.

Data collected by NECA suggest that DCS port charges should be set no higher than the PRI-ISDN port charge rate. As in the case of SLC charges, NECA's data indicates that a lower charge could be justified. Since the data represent a limited sample, however, NECA

recommends as a conservative step that the Commission permit NECA is permitted to set the DCS port charge at the existing PRI-ISDN port charge rate pending further studies.

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The National Exchange Carrier Association, Inc. (NECA)[1] submits these Comments in response to the Commission's *Notice of Proposed Rulemaking* (NPRM) in the above-captioned proceeding.[2]

NECA data show clearly that no more than five SLCs should be charged for derived channel T-1 services (or "DS1 channel service" or "DCS") where the end user provides the terminating channelization equipment. Moreover, no cost-based reason exists to justify requiring rate of return local exchange carrier (LEC) customers purchasing DCS to pay more in end user charges than customers purchasing PRI-ISDN service. Therefore, the Commission should

[1] Under subpart G of the Commission's Part 69 rules, NECA is responsible for the preparation of access charge tariffs on behalf of telephone companies that do not file separate tariffs, and for the collection and distribution of access charge revenues. See 47 C.F.R. §§ 69.603 and 64.604. NECA is also responsible for collecting high cost loop data from its member telephone companies pursuant to part 36 of the Commission's rules. 47 C.F.R § 36.1 *et seq.* NECA pool members (NECA carriers) provide service in more than 1200 study areas throughout the nation. The companies serving these are largely rural incumbent local exchange carriers (RLECs), and a substantial majority of them have far fewer than 50,000 access lines.

[2] National Exchange Carrier Association Petition to Amend Section 69.104 of the Commission's Rules, WC Docket No. 04-259, RM-10603, Notice of Proposed Rulemaking, 19 FCC Rcd 13591 (2004) (*NPRM* or *Order*), *comment period extended*, DA 04-3202 (Oct. 6, 2004).

modify its rules accordingly. This suggested rule change, text of which is provided in Attachment A, will more closely align end user charges with costs,[3] consistent with the Commission's goals, and it would not unduly burden the high cost universal service fund or jeopardize the public interest.

NECA's data also show that DCS port charges should be set no higher than the rate for PRI-ISDN port charges. Although it appears from the data that a lower port charge for DCS could be justified, the data reflect a relatively small sample. As a conservative step, NECA recommends that the Commission set the DCS port charge no higher than the PRI-ISDN port charge rate pending further cost studies.

I. Rate Development Task Force Members Supplied Cost Data and Network Design Diagrams.

In response to the *NPRM*, NECA issued a data request in September 2004 to its Rate Development Task Force (RDTF).[4] The survey is included as Attachment C.

RDTF members were asked to provide detailed installed loop cost data for analog voice grade service, DCS and PRI-ISDN service. RDTF members were also asked also to provide network configuration information to illustrate how analog voice grade, DCS and PRI-ISDN

[3] *See NPRM*, ¶ 15 (citing Access Charge Reform, CC Docket Nos. 96-262, 94-1, 99-249, 96-45, Order on Remand, 18 FCC Rcd 14976 (2003), ¶ 2).

[4] The Rate Development Task Force is a group of selected participants in the NECA Traffic Sensitive (TS) and Common Line (CL) Pools. Members of the RDTF represent approximately 37 percent of the TS Pool revenue and more than 5 million of 12 million access lines in the CL Pool. Other companies may participate as associates to the RDTF on an ad hoc basis, and did in this exercise. NECA uses the RDTF to develop cost characteristics representative of pooling companies and to facilitate the rate development process and provide supporting information for NECA tariff filings.

services are provisioned. NECA collected cost information from the RDTF members to determine the installed costs for the following:

- In-service average common line (loop) cost for basic analog voice service for a representative network configuration;
- In-service average common line (loop) cost for DCS for a representative network configuration;
- In-service average common line (loop) cost for PRI-ISDN service for a representative network configuration; and
- Switch Port costs associated with termination of DCS, PRI-ISDN, and basic analog service.

Each participating task group member was asked to conduct engineering studies of existing loop deployments used to provision basic analog voice service, DCS and PRI-ISDN. In preparing inputs, task group members were asked to ensure that they reflect local engineering practices and best available current installed cost information.[5]

NECA received data from twelve companies, representing 208 study areas and 4.6 million access lines.[6] Respondents provided detailed data on:

- Loop Network(s): Costs for each deployed serving arrangement for each type of service (voice grade, PRI-ISDN, or DCS) using engineering data. The cost data represents the cable route make-up, including considerations for cable size, route or segment length, type of installation (*e.g.*, buried or aerial cable), and the use of electronics on the route (*e.g.*, digital loop carrier equipment). Where there existed insufficient demand or limited engineering data to determine the actual cable route used by different services, estimates of the most likely route make-up were developed based on local engineering studies.

[5] Local engineering practices impact deployment costs due to use of alternate technologies such as fiber optics and remote terminals to reach subscribers, as well as variations in topography and other environmental conditions.

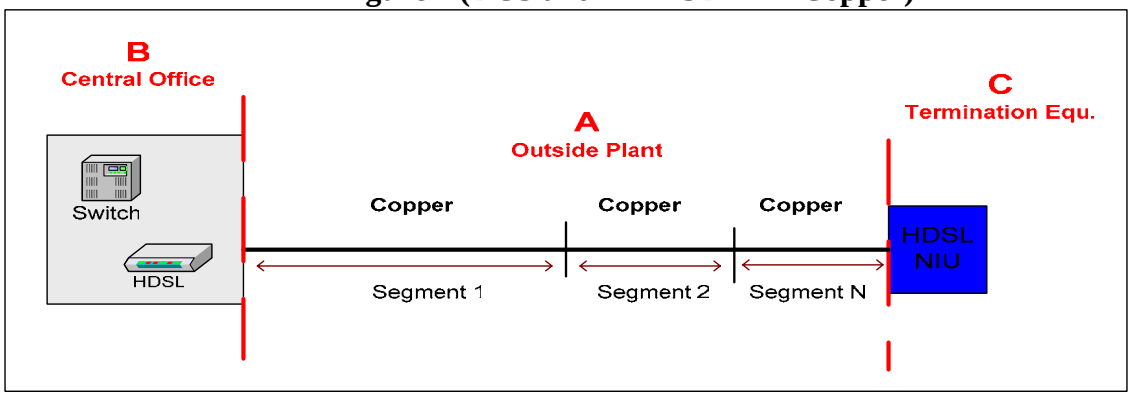
[6] Alltel Communications, Inc.; Blackfoot Telephone Cooperative, Inc.; Central Utah Telephone; Inc.; CenturyTel, Inc.; Commonwealth Telephone Company, Ketchikan Public Utilities; Matanuska Telephone Association, North State Telephone Company d/b/a North State Communications; North Pittsburgh Telephone Company; Skyline Telephone Membership Corp., Toledo Tel. Co. Inc.; and TDS Telecom.

- Switch Port Costs for Basic Analog, DCS and PRI-ISDN Service: Cost data and details on types of switch investments for DCS, PRI-ISDN, and basic analog service.

II. Network Architecture Specific Regulation Should Not be Adopted, Nor Should Customer Location Affect the Number of SLCs Applied to Derived Channel T-1 Services.

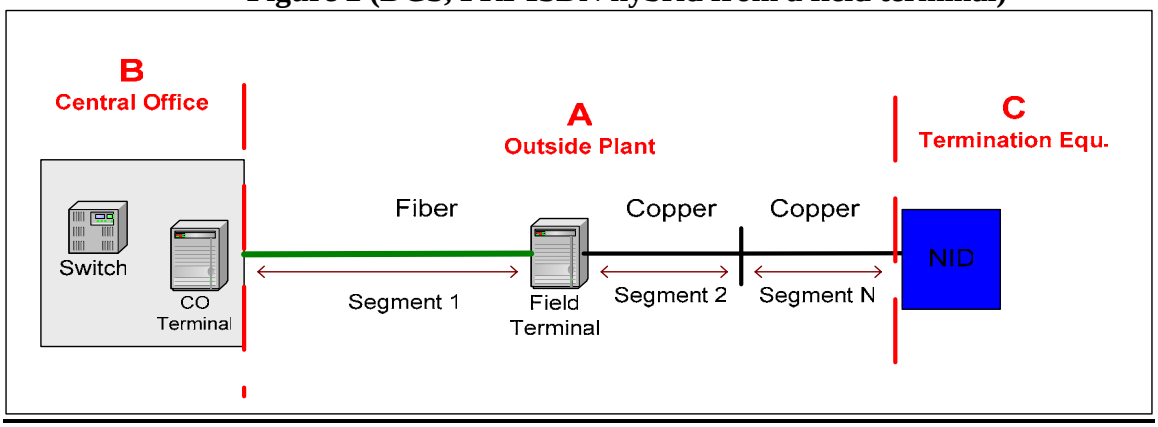
Most respondent RDTF members indicated that they deploy most of their DCS and PRI-ISDN services over HDSL (high bit-rate digital subscriber line) technology.[7] Results from the data request indicate that two common architecture configurations are used to provide either DCS or PRI-ISDN loops. One configuration uses all copper HDSL technology. The other is a hybrid fiber-copper loop, with fiber feeder to a field terminal equipped with DCS- or PRI-ISDN-capable circuit packs and copper distribution to the subscriber. The all-copper solution is typically used for installations when the user is located close to the serving wire center. Field terminals and hybrid loops, in contrast, are generally used in cases where the customer is found at serving locations remote from the serving wire center. Figures 1 and 2 below illustrate the architectures used to deploy DCS and PRI-ISDN services.

Figure 1 (DCS and PRI-ISDN All Copper)



[7] Depending on the HDSL product, DCS and PRI-ISDN circuits are provisioned over either a single two-wire loop or a four-wire loop.

Figure 2 (DCS, PRI-ISDN hybrid from a field terminal)



Analog voice service is also provided over all copper or over hybrid fiber–copper. As with DCS and PRI-ISDN, the hybrid fiber-copper configuration, using field terminals, is required to provide analog voice grade service to customers located remotely from the serving wire center or in areas where there are limited feeder cables. Figures 3 and 4 below show analog voice service architectures.

Figure 3 (Analog voice all copper)

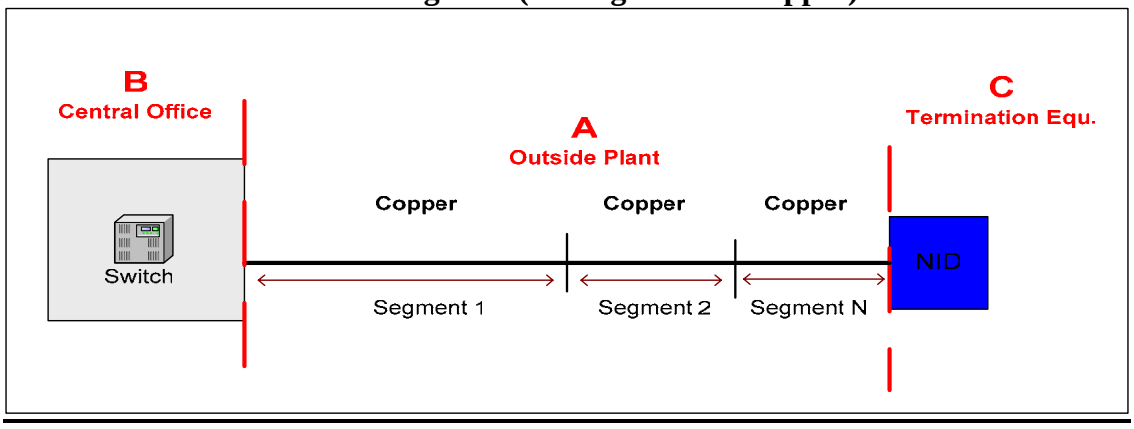
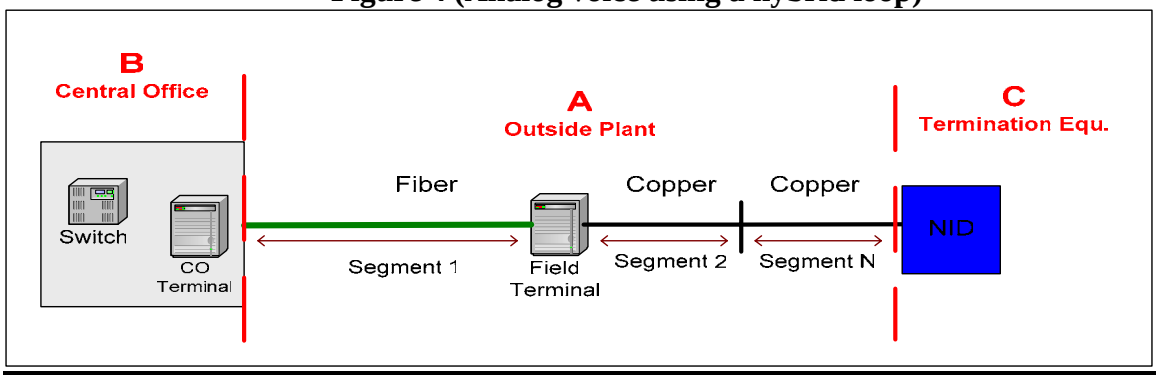


Figure 4 (Analog voice using a hybrid loop)



RDTF data indicate that when PRI-ISDN and DCS services are provided over the same physical cable and wires used for analog voice service, the higher speed transmission requires special and more costly electronics. Further, such loops typically require special conditioning, *e.g.*, pair selection to avoid cross talk and interference with other services, to deliver a higher degree of quality than would be required for analog voice only service.

LEC technology deployment decisions are complex and may involve consideration of existing facilities and demand for various services along the route, among other factors. None of these considerations is under the control of the customer. Therefore, as a general matter, the Commission should not favor one network architecture over another by implementing architecture-specific cost recovery rules.[8] Network architecture-specific regulation over functionally equivalent services is not technology neutral, is administratively unworkable, and defeats universal service goals.

Network operators deploy different architectures, *e.g.*, hybrid loops that are provisioned on combinations of fiber and copper cables, as necessary. Network design is often a factor of the environmental and topographical conditions that vary widely within and among rural markets. To base regulation on specific network architecture ultimately could lead to the deployment of

[8] *NPRM*, ¶ 23.

inefficient networks as operators may be motivated to make deployment decisions based on regulatory cost recovery opportunities rather than efficient network design. In any event, SLC cost recovery rules based on network architecture would be overly granular and place the Commission in the unenviable role of policing the deployment of individual technologies in ILEC telecommunications networks. Even if the Commission had sufficient engineers and investigators to complete the task, serious questions arise as to whether this would be a sensible or reasonable outlay of the Commission's limited resources.

Nor should the Commission base the number of SLCs assessed per loop on customer location. As survey responses indicated, the decision as to whether to use all copper or hybrid copper-fiber loops is often a function of the customer's proximity to the serving central office switch and is not merely a discretionary item. In some rural markets business customers tend to be located close to the central office. In such a market, the derived channel T-1 service loop costs might be below the cost of providing analog voice service to residential subscribers in remote or isolated serving areas. Charging such business customers fewer SLCs as a direct consequence of geographic network deployment factors for the same service merely disadvantages distant customers, and serves no useful purpose.

Finally, a technology- or location-dependent SLC may unfairly penalize customers that receive the same service as other customers simply because the technology deployed on the route by the LEC is different. A variable SLC of this nature would exacerbate the network cost recovery challenges that universal service policies seek to overcome. For the foregoing reasons the Commission should not apply this type of rate regulation to DCS.

III. The DCS to Analog Voice Service (POTS) Line Cost Ratio is No More than 5:1, and the DCS:POTS SLC Ratio Should be Set Accordingly.

Results of the RDTF survey support NECA's petition for a change in the Commission's rules to assess no more than five SLCs for derived channel T-1 service. Support for this observation is documented in Attachments B1-B3.

Attachment B1 compares the average cost of POTS with a T-1 Channel Termination using NECA 2004 Annual Filing data. The table shows that the T-1-to-POTS line cost ratio is 3.58:1.

Using survey results, Attachment B2 displays the ratios of Common Line costs for DCS and PRI-ISDN to basic analog service (POTS). Because DCS and PRI-ISDN use the same loop technology, they have the same cost relationship to POTS line costs. The weighted average cost ratios to POTS (2.7 for DCS and 2.8 for PRI-ISDN) are virtually the same, while the individual company ratios vary within a range of 1.4 to 8.7.

Survey results show (see Attachment B3) that the cost ratios vary considerably by technology and across technologies. Some companies report using more than one technology. For example, the category "HDSL and DLC" represents the average composite cost relationship for companies that use HDSL in certain situations and the DLC (digital loop carrier) hybrid arrangement in others. As one might expect, longer loops can lead to higher ratios. The extreme high ratio exhibited in Attachment B3, for example, is associated with a company with very long loops.

The variable nature of the ratio is attributed in part to the relatively small data sample. While the data gathered suggest that a DCS:POTS ratio well below 5:1 could be justified, given the small size of the sample, NECA suggests that the Commission move conservatively at this

juncture. With so much variation between companies and technology in the sample, it is prudent to set the number of SLCs per DCS at no more than five.

IV. DCS Line Port Charge.

Attachment B4 shows the methodology used to calculate the current PRI-ISDN line port charge of $23.51. Based on available data, it appears from calculations displayed in Attachment B5 that the same methodology would produce a port charge of $11.62 for DCS. The principal reasons behind the difference between the PRI-ISDN and DCS port costs are the additional call processing and software license fees associated with PRI-ISDN. Such costs are not required to provide DCS service.

NECA cautions again, however, that the RDTF data collected thus far, while valid, comprise a relatively small sample. NECA accordingly recommends, as it does in the SLC ratio context, that the Commission take a conservative approach, and permit NECA to set the DCS port rate equal to the PRI-ISDN port charge, on an interim basis, until such time that data from a larger sample can be collected.

V. Reducing the Number of SLCs Imposed on Derived Channel T-1 Service to Five Would Establish a Rational Link Between Interstate Services Costs and Rates While Not Substantially Impacting ICLS and the High Cost Universal Service Fund.

The proposed rule change would neither impermissibly shift recovery of common line costs to the high cost universal service fund, nor jeopardize the public interest. Rather, it would more accurately "align the interstate rate structure more closely with the manner in which costs are incurred,"[9] and promote universal service objectives.

[9] *MAG Order*, ¶ 3.

The Commission has already determined that costs of providing high capacity digital transmission facilities configured as PRI-ISDN are reasonably recovered, on average, by no more than five SLCs.[10] As described above,[11] derived channel T-1 services are provided in the same manner as PRI-ISDN, and the costs of providing both services are comparable.[12] Furthermore, the actual ratio of T-1 loop costs to POTS loop costs, based on common line cost data from NECA's annual access filing, is no more than 5:1.[13] Other parties independently have reached the same conclusion.[14]

As the rules now stand,[15] rates for derived channel T-1 services are not aligned with costs, and customers of these services are required to pay charges far in excess of the costs they impose on the network. Permanently reducing the number of SLCs imposed on derived channel T-1 service will correct this imbalance. The savings in SLC charges (up to $169 per T-1 per month or $2,029 per year per customer)[16] will benefit existing (and potential new) rural DCS

[10] Access Charge Reform, CC Docket No. 96-262, Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, Transport Rate Structure and Pricing, CC Docket No. 91-213, End User Common Line Charges, CC Docket No. 95-72, First Report and Order, 12 FCC Rcd 15982 (1997), ¶¶ 115-16.

[11] *See supra*, Section II. *See also* Reply Comments of NECA, RM No. 10603 (Dec. 16, 2002) at 2; Comments of TDS Telecommunications Corp., RM No. 10603 (Dec. 2, 2002) at 2-3; and Comments of ALLTEL Communications, Inc., RM No. 10603 (Dec. 2, 2002) at 4.

[12] *See* Attachment B2.

[13] *See also* Attachment B1.

[14] See, e.g., Comments of TDS, RM No. 10603 (Sept. 25, 2003) at 2; Comments of Great Plains, RM No. 10603 (Sept. 25, 2003) at 4.

[15] The Commission of course granted an interim waiver of the relevant Rules section in its *Order*, ¶ 39.

[16] Estimated savings are calculated as follows: First, the Average MLB rate of Common Line Pool of $8.90 is calculated from 2004 Ann. Filing Vol 4 EX 2: (L3 Col C + L7 Col C) / (L3 Col A + L7 Col A)) / 12, i.e., (208,417,886+24,302,141)/(1,904,717+273,620)/12. Next, the savings

customers by making these services available at reasonable rates, thereby furthering the Commission's universal service goals of making available comparable services at comparable rates nationwide. The savings in SLC charges will, however, be offset by requisite PBX equipment investment, and so are not expected to motivate existing customers of other services to migrate to DCS. Adoption of the proposed rule, rather, will allow NECA member companies to offer services to existing and potential customers at competitive rates in line with actual costs.

The proposed rule change will not improperly shift costs to the High Cost Fund. The Commission established the Interstate Common Line Support (ICLS) universal service fund in conjunction with access reforms intended to "align the interstate access rate structure more closely with the manner in which costs are incurred . . . ."[17] ICLS was specifically designed to provide each rate-of-return ILEC with support necessary to meet its common line revenue requirement after recovery of common line revenue from tariffed end-user charges (SLCs and port charges) and Long Term Support (LTS).[18]

NECA does not anticipate a substantial impact on ICLS and the High Cost Fund as a consequence of this change. Current demand for derived channel T-1 services among rate-of-

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in SLC charge per T-1 per month is calculated by multiplying the Average MLB rate of Common Line Pool and the difference between the 24 SLCs charged previously to the 5 SLCs charge, *i.e.*, $8.90 x (24 – 5) = $169.10. The annual figure ($2,029.20) is obtained by multiplying the monthly figure ($169.10) by 12.

[17] Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers, CC Docket no. 00-256, Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Access Charge Reform for Incumbent Local Exchange Carriers Subject to Rate of Return Regulation, CC Docket No. 98-77, Prescribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, CC Docket no. 98-166, Second Report and Order and Further Notice of Proposed Rulemaking in CC Docket No. 00-256, Fifteenth Report and Order in CC Docket No. 96-45, and Report and Order in CC Docket Nos. 98-77 and 98-166, 16 FCC Rcd 19613 (2001) (*MAG Order*), ¶ 3.

[18] *MAG Order*, ¶ 142.

return carriers is relatively small and, as described above, NECA does not believe at this time that SLC savings would stimulate migration to the service. Based on updated information, NECA estimates that the reduction in SLC revenue resulting from adoption of the new rule would be approximately $20.7M[19] per year, from which NECA projects a reduction in SLC revenues of 1.08%. The reduction in SLCs would be offset in part by estimated port revenues of $2.9M.[20] The difference, $17.8M,[21] to be recovered via ICLS, represents a fraction of a percent (0.46%) of the current $3.91 billion USF High Cost funding requirement.[22]

VI. Conclusion

For the foregoing reasons, the Commission should modify Section 69.104 of its rules to specify assessment of no more than five SLCs on derived channel T-1 services. The Commission should not impose network architecture-specific (or customer location-specific) rate structure regulations on carriers that deploy derived channel T-1 service. Finally, the Commission should permit rate of return LECs to set their DCS port charges at the same levels as PRI-ISDN port charges on an interim basis. Such changes to the Commission's rules represent conservative

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[19] *See* Attachment B6

[20] *See* Section IV, *supra*. The offset assumes the Commission would set the DCS port rate at the PRI-ISDN level—$23.51. Were the Commission to set the DCS port rate instead at $11.62, NECA estimates that the annual ICLS funding requirement would increase an additional $1.4M, to $19.2M.

[21] In prior filings NECA had estimated the ICLS increase to be $11.5M. The new estimate is based on an updated forecast using the most recent RDTF and NECA data.

[22] *See* Universal Service Administrative Company (USAC), Administrative Filing for First Quarter 2005, "HC01 - High Cost Support Projected by State by Study Area - 1Q2005," http://www.universalservice.org/overview/filings/2005/Q1/HC01%20-%20High%20Cost%20Support%20Projected%20by%20State%20by%20Study%20Area%20-%201Q2005.xls.

steps that will better align rates with costs and advance the Commission's universal service objectives.

Respectfully submitted,

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Attachment A: Proposed Rule Change

NECA proposes modifying section 69.104(p) of the Commission's rules as follows (modifications are indicated by underscoring or striking through the text):[*]

(p) ~~Beginning January 1, 2002, n~~Non-price cap local exchange carriers shall assess:

(1) No more than one End User Common Line charge as calculated under the applicable method under paragraph (n) of this section for Basic Rate Interface integrated services digital network (ISDN) service.

(2) No more than five End User Common Line charges as calculated under paragraph (o) of this section for Primary Rate Interface ISDN service.

(3) No more than five End User Common Line charges as calculated under paragraph (o) of this section for customer-ordered exchange access service that is provisioned using T-1 interfaces for which the customer supplies the terminating channelization equipment.

[*] Unchanged from National Exchange Carrier Association, Inc., Petition to Amend Section 69.104 of the Commission's Rules, RM-10603 (Sept. 26, 2002), App. A.

Attachment B1
Average Cost of POTS Loop vs. T-1 Channel Termination

Average Cost of a POTS Loop vs. T-1 Channel Termination
Using Data From NECA's 2004 Annual Filing

Line	Description	Source *	Amount
1	CL Revenue Requirement (incl. Line Ports)	Vol 2, Ex 1, WP 1	$2,011,020,000
2	Line Port Revenue Requirement	Vol 1-2, 61.38 ACR-1 TRP	$130,328,000
3	CL Revenue Requirement less Line Ports	Line 1 - Line 2	$1,880,692,000
4	CL Lines	Vol 3, Ex 1, WP 1	12,102,821
5	Monthly Cost per loop, excl. Port	Line 3/ Line 4/ 12	$12.95
6	T-1 Channel Term rate	Vol 5, Ex 12, WP 8, Line 3180	$185.41
7	SPF Factor	Separations	0.25
8	Monthly subscriber cost	Line 6 X Line 7	$46.35
9	T-1:POTS Ratio	Line 8 / Line 5	3.58

* References to NECA Annual Filing, June 16 2004, Trans. 1030.

Attachment B1 updates information contained in an exhibit in NECA's *ex parte* presentation of February 27, 2003. Monthly cost per loop excluding port is calculated using the Common Line Revenue Requirement including Line Ports minus the Line Port Revenue Requirement and divided by the CL Lines, which are total access lines in service projected for Test Period July 2004 to June 2005 in NECA's 2004 annual filing data. The monthly subscriber cost of a T-1 is calculated by multiplying the current T-1 Channel Termination Rate by the SPF (Subscriber Plant Factor), a separation factor that is now frozen. The common line ratio of T-1 to POTS of 3.58 (Line 9) confirms the reasonableness of a using a 5:1 ratio of T-1 to POTS SLCs.

Attachment B2
Ratios of Common Line Costs for DCS and PRI-ISDN to Basic Analog Service

Ratios of Common Line Costs for DCS and PRI-ISDN to Basic Analog Service

	Weighted Average of Ratios	Range of Ratios
Ratio of DS1 Channel Service to POTS	2.7	1.4 to 8.7
Ratio of PRI-ISDN to POTS	2.8	1.4 to 8.7

Attachment B2 shows that the weighted averages of the common line portion of the cost ratios of both DCS to POTS and PRI-ISDN to POTS are around 3:1. The weighted averages are calculated for companies that offer both PRI-ISDN and DCS services. The sample averages are calculated using weights based on access lines in service projected for Test Period July 2004 to June 2005 in NECA's 2004 annual filing data. The cost ratio ranges for DCS to POTS and PRI-ISDN to POTS are also almost identical.

Attachment B3
Ratios of Common Line Costs for DCS and PRI-ISDN to Basic Analog Service by Application Technologies

Ratios of Common Line Costs for DCS and PRI-ISDN to Basic Analog Service

	Samples of companies using HDSL only	Samples of companies using both HDSL and DLC	Samples of companies using both HDSL and Fiber T-1	Samples of companies using Conditioned T-1
Range of Ratios of DS1 Channel Service to POTS	3.3 to 4.6	3.0 to 8.7	1.7 to 6.1	0.7 to 1.4
Range of Ratios of PRI-ISDN to POTS	3.3 to 4.6	3.0 to 8.7	2.1*	1.4*

*One observation in the cell may represent a small fraction of lines in the sample.

In addition to Attachment B2, which shows cost ratios by service (PRI-ISDN to POTS and DS1 Channel Service to POTS), Attachment B3 displays cost ratios by technology employed. Companies reported using either HDSL, or HDSL and DLC, or HDSL and Fiber T-1 or Conditioned T-1 to deliver the higher capacity channelized services. The cost ratios vary by technology; however, the sample size within several of the cells is small. Therefore, a summary value may represent only a small fraction of the lines represented by the sample. For example, only one company reported using HDSL and Fiber T-1 technology, and only one reported using Conditioned T-1 technology to provide PRI-ISDN.

Attachment B4
Development of Current PRI-ISDN Line Port Rate

Development of Current PRI-ISDN Line Port Rate

LINE	DESCRIPTION	SOURCE*	AMOUNT
1	Basic Analog POTS Investment	Line 1	$177.58
2	PRI-ISDN Per Unit Investment	Line 3	$6,066.12
3	NECA Pool Interstate Factor	Line 4	0.164
4	Annual Carrying Charge	Line 5	33%
5	Cost of one POTS	Line 7	$0.81
6	PRI-ISDN Total Monthly Cost	Line 9	$27.54
7	Cost of five POTS Svcs	Line 10	$4.03
8	PRI-ISDN Port Rate	Line 11	$23.51

**NECA Annual Filing Volume 4 Exhibit 3, June 16 2004, Trans. 1030.*

Attachment B4 is the "Calculation of Proposed ISDN Line Port Rates" exhibit in NECA's Annual Filing, June 16, 2004, Trans. 1030. It shows how the current PRI-ISDN Port rate of $23.51 was developed.

Attachment B5
Development of DS1 Channel Service Port Rate

Development of DS1 Channel Service Port Rate

LINE	DESCRIPTION	SOURCE	AMOUNT
1	Basic Analog POTS Investment	RDTF Study, Sept. 2004	$89.32
2	DS1 Channel Service Per Unit Investment	RDTF Study, Sept. 2004	$3,005.92
3	NECA Pool Interstate Factor	Attachment B4, Line 3	0.164
4	Annual Carrying Charge	Attachment B4, Line 4	33%
5	Cost of one POTS*	Line 1 x Line 3 x Line 4 / 12	$0.41
6	DS1 Channel Service Total Monthly Cost	Line 2 x Line 3 x Line 4 / 12	$13.65
7	Cost of five POTS services	Line 5 x 5	$2.03
8	DS1 Channel Service Port Rate	Line 6 - Line 7	$11.62

*Updated cost of one POTS reflects the Basic Analog POTS Investment data in the most recent (Sep, 2004) RDTF Study.

Attachment B5 applies RDTF survey data to develop a DCS Port Rate with the methodology used to calculate the current PRI-ISDN port rate in the 2004 Annual Filing . The numbers for Basic Analog POTS investment (Line 1) and DS1 Channel Service Per Unit Investment (Line 2) are the weighted averages of the investment cost information collected in September 2004 RDTF Study. Assuming common line ratios of DCS to POTS is 5 to 1, the DS1 Channel Service Port Rate is calculated to be $11.62 by subtracting the cost of five POTS services from DCS Total Monthly Cost.

Attachment B6
Estimated Annual Impact of DCS on Interstate Common Line Support

Line	Description	Source	Amount
1	Estimated DS1 Channel Service Arrangement[1]	September 2004 RDTF Data Request	10,183
2	Estimated SLC MLB Line Loss	Line 1 * (24 - 5)	193.477
3	Average MLB Rate of Common Line Pool	(2004 Ann. Filing Vol 4 EX 2: (L3 Col C + L7 Col C) / (L3 Col A + L7 Col A)) / 12	$8.90
4	Estimated SLC Revenue Loss	Line 2 * Line 3 * 12	$20,669,884
5	Estimated DS1 Channel Service Port Revenue	Line 1 * $23.51 * 12	$2,872,828
6	Estimated Net Interstate Common Line Support	Line 4 - Line 5	$17,797,056

Attachment B6 uses RDTF data to calculate the impact of charging 5 instead of 24 SLCs on Interstate Common Line Support. The estimate for DS1 Channel Service Arrangement in Line 1, based on DCS demand estimate for the test period July 2004 to June 2005 assuming DS1 Channel rule change of 5 SLCs for DCS is in effect, is projected to the Common Line pool using the percentage of sampled company MLB lines to total MLB lines for the Common Line pool. The Estimated SLC MLB Line Loss in Line 2 is the decrease in number of chargeable SLCs that result from decreasing the number of SLCs per DCS arrangement from 24 to 5. The average MLB Rate for Common Line Pool members is calculated from Proposed (annual) MLB revenues divided by (average monthly) MLB demand in 2004 Annual Filing, Vol. 4, EX 2 divided by 12. The Estimated SLC Revenue Loss of $20.7M in Line 4 is priced out using the MLB demand loss in Line 2 multiplied by the Average MLB rate of Common Line Pool and multiplied by 12. The Estimated DCS Port Revenue of $2.9M is the price out the estimated DCS demand at the current DCS port rate of $23.51 multiplied by 12. Finally, the estimated net ICLS of $17.8M in Line 6 is the difference between the loss of SLC revenue identified in Line 4 and the gain from revenues of DCS Port rate (set at the PRI-ISDN port rate calculated in Attachment B4) in Line 5.

Attachment C: September 2004 RDTF Survey

Rate Development Task Force
Special Data Request: DS1 Channel Service and ISDN Services

Introduction & Overview:

In its Order and NPRM released on July 19, 2004, the FCC granted NECA's petition on an interim basis pending completion of a proceeding to examine the proper number of SLCs that should apply to DS1 Channel Service (DCS)[*] where the customer provides the channelization equipment and also to PRI-ISDN. In this data request, the RDTF is being asked to provide the common line and switch port cost data and demand data that NECA will need to respond to the Commission's NPRM.

The NPRM requires that all studies filed in response to the NPRM must relate the actual cost of provisioning DCS and PRI-ISDN digital services to the cost of providing "basic analog services[†]

This data request seeks to collect cost information to determine the installed costs for the following:

1. The in service average common line (loop) cost for basic analog voice service for a representative network configuration.
2. The in service average common line (loop) cost for DS1 Channel service for a representative network configuration.
3. The in service average common line (loop) cost for PRI-ISDN service for a representative network configuration.
4. Switch Port costs associated with termination of PRI-ISDN and DCS service and basic analog service.

The data request is organized into three sections.

Section 1. Common Line

Cost data is requested for loop network facilities used to provision the following services.

Part A: Basic Analog Service (e.g., report analog loop costs)

Part B: DS1 Channel Service and PRI-ISDN Services

[*] DS1 Channel Services is also referred to with a variety of labels. FCC: channel T-1 service where the customer provides the terminating channelization equipment. T-1 channelized service. DTS. Digital PBX trunk. We will use "DCS" as a label for DS1 Channel Service in parts of this data request.

[†] For the purposes of this data request, we are defining the elements of basic analog services as an analog voice band circuit and associated circuit and line termination equipment used to provide basic POTS.

- Part B-I is used to report any general purpose cross connect equipment that that may be found in various network arrangements (e.g., DSX panels).
- Part B-II is used to report costs for HDSL network arrangements. The term HDSL refers to products sold as HDSL, HDSL2, or HDSL4.
- Part B-III is used to report costs for any other network arrangement that may be used to provision DS1 Channel service and PRI-ISDN.

Section 2. Switch Port

Cost data is requested for the switching equipment port (e.g., for line or trunk circuits) and software unique to the provision of DS1 Channel Service, PRI-ISDN, BRI ISDN and POTS.

Section 3. Demand

The primary purpose of this section is to identify how demand and SLC revenues for the DS1 Channel Services and PRI-ISDN services may be affected by the rule change.

Part A: Three year demand for DS1 Channel Service and PRI-ISDN assuming SLC rules are unchanged (e.g., maximum of 24 SLCs for DS1 Channel Service).

Part B: Three year demand for DS1 Channel Service and PRI-ISDN assuming SLC rules are revised (e.g., 5 SLCs applied for either service).

Part C: Three year demand data for BRI-ISDN.

General Conditions

1. Data is requested for a representative sample of existing installations or a most likely configuration of actual installed service.

2. Network configuration and cost data should be based on current methods and technologies used to provision DS1 Channel Service and PRI-ISDN Service.

3. The common line "Basic Analog Service" facility is assumed to be an analog voice circuit provisioned over a copper pair or through a DLC remote terminal.

   The cost data requested in Section 1, Part A for both the all copper and DLC implementations is based on average length analog service loops where the average represents all POTS services. The cost should reflect the in-place loop makeup (e.g., cable size, cable gauge, structure, etc.) based on a sample of loops and may be priced using current material and installation costs.

   If you have analog loop cost data for POTS services that is a composite of both all copper and DLC technologies, you may report the combined average analog loop cost and provide a brief explanation of the basis.

4. Where service facilities are typically over-provisioned (e.g., POTS analog lines), utilization factors will be used to adjust costs based on the number of circuits that are actually serving customers. HDSL circuit packs for DS1 and PRI services are assumed to be installed on an "as needed" basis and all available equipped channels are in service.

5. Much of the circuit equipment used to provision DS1 Channel Service and PRI-ISDN consists of (1) Common equipment (e.g., cabinet, channel bank, common circuit packs, etc.) and (2) service specific circuit packs or modules (e.g., POTS, DS1, DSL, ISDN, etc.) that may be installed in the optional channel bank slots or positions depending upon the application. In some cases, all available optional channel bank slots are not occupied or used; common equipment channel bank capacity should then reflect the number of slots in use. Circuit packs for DS1 and PRI services are assumed to be installed on an "as needed" basis and all available equipped channels are in service.

6. If your cost data is not in a format that matches that of the attached data request and can not be easily converted, please provide the data that is available and that may be useful in determining the cost objectives of this data request.

[worksheets follow]

Data Request Form

DS1 Channel Service and ISDN Services

General Information:

Company Name:	
SAC:	
Contact Name:	
Phone:	
E-Mail:	

Does your company offer the following services:

1	DS1 Channel Service?	
2	PRI-ISDN?	
3	BRI-ISDN?	

Section 1: Common Line

Part A: Basic Analog Service Facility

Report "all copper" loop arrangements in Part I below. Report DLC derived facilities for analog POTS services in Part II.

If you use a loop cost model that produces an average loop length and average cost that is based on a composite of copper and derived pair (e.g., DLC) technologies, your may report that average length on Line 22 and the average cost on Line 23. Provide a brief explanation of the methodology used on the comment line.

Copper Pair Implementation:

1	Percent of all POTS services provisioned over an "all copper" loop.		
2	Average Loop Length, All Copper Loop What is the average loop length (wire center to customer) for all POTS services? (kft)		
3	Common Line Cost per Pair (in-place): Include the MDF, cable, structure, load coils if applicable, NID, E&I, and conditioning. Base cost on the average loop length reported on Line 2 above. (Note that this cost may differ from the copper media cost reported in Part B-II, Lines 16 and 18 because of conditioning requirements.)		
4	Average Copper Pair Utilization: Pairs in service divided by installed capacity. (%)		
5	Common Line Cost per POTS Line In Service	$0	L3/L4

DLC Implementation:

6	Percent of all POTS services provisioned over a DLC derived loop facility		
7	Average Loop Length, DLC Derived Loop: What is the average loop length (wire center to customer) for all POTS services provisioned over a DLC? (kft)		
8	Central Office Terminal (COT) Common Equipment Cost:		
	Include channel banks, common circuit packs (e.g., power, fiber transmission circuits, maintenance, etc.), spares, vendor E&I, Telco E&I. Note that a COT may support several remotes. Exclude circuit packs for switch interface connection for POTs (e.g., digital GR303 digital integrated interface or analog), DS1 Service, ISDN, and other specialized circuit packs used to provision special access services.		
9	COT Capacity In Use (See General Note 5):		
	Number of optional channel bank slots expected to be in occupied with specific service circuit packs/modules (POTS, DS1 services, DSL, ISDN, etc.). Coordinates with cost reported on Line 8.		
10	COT Common Equipment Cost per Equipped Slot	$0	L8/L9

11	POTS Interface (e.g., GR303) Circuit Pack Cost		
12	Analog POTS Lines supported per Interface Pack		
13	COT Installed Cost per Equipped Analog POTS Line	$0	(L10+L11)/L12
14	Remote Terminal (RT) Common Equipment Cost:		
	Include cabinet, channel banks, common circuit packs (e.g., power, fiber transmission, maintenance, etc.), spares, vendor E&I, Telco E&I. **Exclude** optional service specific circuit packs used for POTS, DS1, ISDN, etc.		
15	RT Common Equipment Capacity In Use (See General Note 5)		
	Number of optional channel bank slots expected to be in occupied with specific service circuit packs/modules (POTS, DS1 services, DSL, ISDN, etc.) Coordinates with cost reported on Line 14		
16	RT Common Cost per Equipped Slot	$0	L14/L15
17	Analog POTS Line Circuit Pack Cost		
18	Number Analog POTS Lines per Circuit Pack		
19	Fiber or Copper Cable Cost per Equipped POTS line:		
	Include the in-place investment cost per derived POTS line of the transmission media (fiber or T-1 conditioned copper pairs) between the central office and RT and the cost of the copper distribution pair from the RT to the customer, if significant.		
20	Average DLC POTS Utilization: Analog POTS lines in service provisioned through DLC system divided by total equipped POTS analog line capacity.		
21	Total Common Line Cost per Analog POTS Line Provisioned Over DLC {L13 +L19+(L16 + L17)/L18}/L20	$0	{L13+L19+(L16+L17)/ L18}/L20
Composite Copper Pair and Derived Pair Model From a model or program program that produces the following data based on a combination of copper pair and derived pair (DLC) loop facilities. Provide brief explanation of methodology on Comment line.			
22	Average Composite Loop Length (kft)		
23	Average Composite Cost for Loop		

Comments:

Please return completed data request forms no later than September 17, 2004

Data Request Form

DS1 Channel Service and ISDN Services

General Information:

Company Name:	
SAC:	

Does your company offer the following services:

1	DS1 Channel Service?	
2	PRI-ISDN?	
3	BRI-ISDN?	

Section 1: Common Line

Part B: DS1 Channel Service and PRI ISDN Service Arrangements

Part I below can be used to report general-purpose central office circuit equipment that may be used with many network arrangements for provisioning DS1 and PRI services and a variety of other applications. Part II should be used to report the outside plant facilities involving HDSL technology and Part III to report other methods such as those using DLC and SONET technologies. If one method is clearly predominant, you may report only that method in Part II or Part III and explain in the Commnt line.

Use Column A below for reporting equipment arrangements for DS1 Channel Service. Use Column B for reporting equipment used for PRI ISDN. If both services are offered, please complete both columns, even if the data entries are the same.

	I. General Purpose Cross-Connect Equipment Used to Provision DS1 Channel Service or PRI ISDN	**DS1 Channel Service (Column A)**	**PRI ISDN Service (Column B)**	
1	DSX Panel Investment; DACs Investment: Total installed cost or investment including channel banks, common circuit packs, spares, vendor engineering and installation (E&I) and telco E & I.			
2	DSX Capacity; DACS Capacity Maximum number of 1.5 mbps x-connects corresponding to investment reported on Line 1 above.			
3	DSX/DACS Utilization Cross-connects in-service divided by maximum capacity (Line 2)			
4	Cost per 1.5 mbps X-connect	$0	$0	L1/L2*L3

II. HDSL Technology

In this section HDSL generically refers to HDSL, HDSL2 or HDSL4 .

	Note: HDSL installed as part of a DLC is reported in Part III, Other Network Arrangements **Configuration 1: HDSL# Technology ; Loop: <12 kft** **Configuration 1a: HDSL# with Repeaters; Loop to about 36 kft**	**DS1 Channel Service (Column A)**	**PRI ISDN Service (Column B)**
	Percent of Total DS1 Channel Services or Total PRI Servicesprovisioned using HDSL service arrangements (from the central office).		
5a	Configuration 1: HDSL over 2 Pairs		
5b	HDSL over 1 Pair		
6	Configuration 1a: HDSL over 2 pairs with repeaters		
	Representative Loop Length, Wire Center to Customer (route length)		
7	Configuration 1 (kft.)		
8	Configuration 1a (with repeaters) (kft.)		

HDSL Central Office Equipment & Software

9	HDSL Central Office (CO) Common Equipment Cost Common equipment including channel bank or chassis, common circuit packs, spares, vendor E&I, Telco E&I.		

10	HDSL CO Equipment Channel Bank Capacity In Use Number of CO channel bank service slots or module positions expected to be occupied with service specific packs or modules. Coordinates with Line 9.			
11	Channel Pack Card or Module Cost: For installation in CO. Assumes one HDSL circuit per module. Assumes no significant difference in HDSL, HDSL2 , or HDSL4 module cost.			
12	HDSL Central Office, Total Cost per Equipped HDSL circuit.	$0	$0	L9/L10 + L11
HDSL Remote Equipment				
13	HDSL Remote Cost, Include enclosure, HDSL circuit packs or modules, spares, E&I.			
14	Number of HDSL Circuits per remote (corresponding to remote cost reported on Line 13).			
15	HDSL Remote Cost per Equipped HDSL circuit	$0	$0	L13/L14
16	Copper Media Cost per pair: Configuration 1 (no repeaters) Include the MDF, cable, structure, NID, E&I, and conditioning. Base cost on the same loop distance as reported on Line 7.			
	Total Common Line Cost per Service Provisioned Over HDSL Configuration 1 (no repeaters)			
17a	HDSL over 2 pairs	$0	$0	L12+L15+2*L16
17b	HDSL over 1 pair	$0	$0	L12+L15+L16
If HDSL Configuration 1a (with repeaters), complete Lines 18 to 20				
18	Copper Media Cost per pair; Configuration 1a (with repeaters). (See Line 16) Base cost on the same loop distance as reported on Line 8.			
19	HDSL Line Repeaters **(Configuration 1a):** Installed cost per HDSL circuit. Base cost on number of repeaters required for distance reported on Line 8.			
20	Total Common Line Cost per Service Provisioned Over HDSL Configuration 1a: HDSL over 2 pairs with repeaters	$0	$0	L12 + L15 +2* L18 + L19

III. Other Network Arrangements for Provisioning DS1 Channel Service and PRI ISDN

Use this section to report network arrangements that typically require common equipment in the central office (e.g., channel banks and common circuit packs) and optional service specific circuit packs (e.g., circuit packs or modules providing POTs, or DS1 or ISDN terminations). A similarly equipped remote unit is located in the field. These type arrangements include DLC systems, Fiber/SONET systems, multiplexers, etc.

Since the types of equipment described above are used for a variety of applications, a generic methodology and summary report that may be adapted to your specific DS1 Channel Service or PRI ISDN applications is provided in this section. Please contact NECA if you need assistance in completing any portion of the data request.

General Methodology For Developing Service Cost The per line unit cost for a specific service facility is calculated as the common equipment cost of the equipped channel bank slot or position adjusted for estimated slot fill or utilization plus the cost of the circuit specific pack (e.g., POTS, DS1, ISDN, etc. line pack) divided by the number of ports provided by the service specific pack. It is assumed that special service circuit packs are installed on an "as needed" basis and all equipped ports are in service.

Hint: If DLC systems are used to provide basic analog POTS services and reported in Part A, common equipment unit costs have already been developed and may be used to develop your inputs for this section. Most HDSL equipment is installed as an independent system and reported in Part B-II. However, if HDSL circuit packs are installed in the DLC channel banks, those costs should be included as service specific components of the DLC. Include the HDSL remote that subtends the DLC RT on Line 26.

		DS1 Channel Service (Column A)	PRI ISDN Service (Column B)
21	**Equipment Type (DLC, Fiber/SONET, etc.)**		

	Identify network arrangement by entering equipment type or refer to configuration diagrams (See Attachment A of Introduction) or forward a diagram of your network to NECA.) Explain on Comment line.			
22	Report percent of the Total DS1 Channel Services or Total PRI Servicesprovisioned using the type equipment reported on Line 21 above.			
23	Representative Loop Length: Wire Center to Customer, when provisioned using the equipment reported on Line 21 (kft.)			
24	**Central Office: Total Equipment Cost per Service Port or Interface (**e.g., total costs described below divided total number of DS1 Channel Service or PRI ISDN ports) Include common equipment installed in the central office such as channel banks, common circuit packs (multiplexers, power, maintenance, etc.), spares, vendor E&I, Telco E&I. Should reflect practical use of channel bank capacity. Include circuit pack/module for DS1 Channel service or PRI ISDN installed at the central office.			
25	**Remote Location: Total Equipment Cost per Service Port or Interface (**e.g., total costs described below divided total number of DS1 Channel Service or PRI ISDN ports). Include common equipment installed at a remote location such as enclosures, channel banks, common circuit packs (multiplexers, power, maintenance, etc.), spares, vendor E&I, Telco E&I. Should reflect practical use of channel bank capacity. Include circuit pack/module for DS1 Channel service or PRI ISDN installed at the central office.			
26	**Additional Equipment or Software:** Report cost of any other common line equipment or software unique to the provision of DS1 Channel Service or PRI ISDN that has not been included above. Include HDSL remote here. Enter as cost per DS1 or PRI line supported. Explain on Comment line below.			
27	**Transmission Media:** If fiber system, report the in-place, installed cost of the fiber media (single or two fiber) per 1.5 Mbps circuit based on fiber route length . If the system is installed on a fiber ring, base the media cost on the average distance aroung the ring; this distance will be different than the route length reported on Line 23.			
28	**Total Installed Cost per DS1 Channel Service or PRI ISDN Facility** (Central Office and Remote)	$0	$0	L24+L25+L26+L27

Comments:

Please return completed data reqest forms no later than September 17, 2004

Section 2 Switch Port Cost

BRI-ISDN, PRI-ISDN, DS1 Channel Service and Basic Analog Service

The following notes may be helpful in developing the switch port information:

1 Capacity" refers to maximum practical capability of the component when fully equipped for the specified service. Since there may be alternative ways of stating component capacity, please label your capacity report. For example, the capacity for a LCM configuration that can support a maximum of 320 ISDN line cards because of design constraints should be reported as "320 ISDN line cards".

2 "Cost" refers to the total component cost.

3 BRI or PRI software feature package costs are incremental those for the base generic or software required to support POTS services and are billed on a per switch basis. Depending upon the switch product, you may have software or RTU fees that are billed on a per line or per service basis. A separate line is provided for reporting these costs.

4 Engineering and installation costs are typically incurred on a per job basis. Consequently, if both BRI and PRI facilities are installed at the same time, the engineering and installation costs should only be reported once (e.g., include in PartA, Lines 4 & 5 below) of the form).

General Information:

Company Name:	
SAC:	

Does your company offer the following services:

1	DS1 Channel Service?	
2	PRI-ISDN?	
3	BRI-ISDN?	

Switch Product Information

4	Switch Manufacturer:	
5	Model:	

Part A: Basic Rate ISDN (BRI ISDN)

	BRI Common Equipment	**Capacity (Note 1)**	**Cost (Note2)**
1	Line Equipment Module/Frame (e.g., LCM - ISDN capable version)		
2	Other ISDN required switch equipment (e.g., Line Group Controller, LGC-ISDN capable)		
3	Spares (if not included in Items 1 & 2)		
4	Vendor E & I (Note 4)		
5	Telco E & I (Note 4)		
	Software (Note 3)		
6	Basic BRI ISDN Software/Feature Package (Do not include RTU billed on per line basis)		
	Per Line		
7	BRI ISDN Line Circuit Pack		
8	Software RTU, if purchased "per line" (Note 3)		

Part B: Primary Rate ISDN (PRI ISDN)

	PRI Common Equipment	**Capacity (Note 1)**	**Cost (Note2)**
1	Digital Trunk Equipment Module/Frame		
2	Other ISDN required switch equipment (e.g., Digital Trunk Controller, DTC or Line Trunk Controller, LTC)		
3	Spares (if not included in Items 1 & 2)		
4	Vendor E & I (Note 4)		
5	Telco E & I (Note 4)		
	Software (Note 3)		
6	PRI ISDN Software/Feature Package (Note 3)		

Per Line			
7	PRI ISDN Line Circuit Pack		
8	PRI Software RTU, if purchased "per PRI" (Note 3)		

Part C: Shared or Other Equipment for ISDN

1	Equipment other than that reported above if required to support the line termination for ISDN services. May be shared between BRI and PRI. Example: Packet handler. Please identify below and explain if part of switch prerequisite upgrade for ISDN.		
2	aaaa		

Part D: DS1 Channel Service

DS1 Channel Service Common Equipment		**Capacity (Note 1)**	**Cost (Note2)**
1	Digital Trunk Equipment Module/Frame		
2	Other DS1 Channel Service required switch equipment (e.g., Digital Trunk Controller, DTC or Line Trunk Controller, LTC)		
3	Spares (if not included in Items 1 & 2)		
4	Vendor E & I (Note 4)		
5	Telco E & I (Note 4)		
DS1 Software (If any)			
6	DS1 Channel Service Software/Feature Package, if unique to DS1.		
DS1 Per Line			
7	DS1 Interface (Port) Circuit Pack		
Other Switch Equipment , If required for DS1 Port. Please identify			
8	aaaaaa		

Part E: Basic Analog Service, POTS

POTS Common Equipment		**Capacity (Note 1)**	**Cost (Note2)**
1	Line Equipment Module/Frame (e.g., LCM, w/o ISDN capability)		
2	Other required switch equipment for POTS line termination (e.g., Line Group Controller, LGC w/o ISDN capability)		
3	Spares (if not included in Items 1 & 2)		
4	Vendor E & I (Note 4)		
5	Telco E & I (Note 4)		
POTS per Line			
6	POTS Line Circuit Pack		

Comments:

Please return completed data request forms no later than September 17, 2004

Section 3
Demand Forecast Impact

General Information:

	Company Name:	
	SAC:	
Does your company offer the following services:		
1	DS1 Channel Service?	
2	PRI-ISDN?	
3	BRI-ISDN?	

Part A: Demand Forecast, Before Rule Change

Report estimated year-end demand assuming the DS1 Channel Service rule change is not in effect. (e.g., 5 SLCs for PRI ISDN and up to 24 SLCs for DS1 Channel Service.)

		2004	2005	2006
1	PRI ISDN Demand			
2	DS1 Channel Service Demand			

Part B: Demand Forecast, After Rule Change

Report estimated year-end demand assuming the DS1 Channel Service rule change is in effect. (e.g., 5 SLCs for either PRI ISDN or DS1 Channel Service.)

3	PRI ISDN Demand			
4	DS1 Channel Service Demand			

Part C: Estimated year-end Demand for BRI ISDN

5	BRI ISDN			

Comments:

Please return completed data request forms no later than September 17, 2004

CERTIFICATE OF SERVICE

I hereby certify that a copy of NECA's Comments was served this 12th day of November 2004, by electronic filing or first class mail, to the persons listed below.

By: /s/ Elizabeth R. Newson
Elizabeth R. Newson

The following parties were served:

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